No. 17

Passed March 26 1827
W. E. H.

An

Essay on Bilious Fever

By

Cyrus McCormick

Of

Frederick County

Virginia

1826

Bilious Fever

We still have the old adage by us
Nil dictum, quod non dictum prius
In commencing the description & treat-
ment of a disease I am well aware of
the almost insurmountable difficulties
which I have to encounter being practically
unacquainted with the stages of diseases &
the remedies suited to them — I shall however
console myself with the reflection that the
practice of medicine is not intuitive, & that
I am addressing gentlemen who know that
the speculative illusions of theorists although
mighty on paper will avail nothing by the
sick bed, when the prospects of a rising
family & perhaps the life of a very dear
friend depend upon the knowledge that
you may have acquired of others or your
own personal experience — You gentle-
men must expect nothing from me but
plain matter of fact; I shall give you —

alone my idea of ~~the~~ origen of this disease attested by the observations of others & the treatment that I conceive the most judicious without being a slave to the opinions of any set of men or school calling from all, whom I have considered distinguished in the practice of this disease viz bilious fever as it occured in the United States & particularly in the valley of Virginia — That this disease has been epidemic since the discovery of this country is a fact known to all, but it is only within a few years past that it has made its appearance in the valley with the exception of the year eighteen hundred & four, it would seem that our mountains presented an insurpasable into disease of almost every kind, until this modern Hannibal spread desolation among us, to use the language of an eloquent

winter, forcing the few diseases that formerly prevailed to wear its livery— But our Physicians Maximus like particularly the gentleman, with whom I had the honour of studying, have completely divested it of its terrific garb & unless it should insidiously prevent itself, we have nothing to fear as there was very little mortality during the last season & that principally confined to the poor who are generally deprived of the comforts & necessaries of life— I would set it down as an axion that bilious fever is the child of Miasmata, which of itself is produced from the combination of heat, moisture & vegetable matter if I did not think that a premiss broadly asserted ought to be supported by well attested facts—

The most essential circumstance

connected with its origin is that heat seems necessary to its production – Cold climates are always exempt from it, the farther you go south the violence of the disease seems to move in a progressive ratio; it never ~~commences~~ in the winter & when raging in the fall it is always suspended by the first frost – Heat will not however alone produce this disease The hottest seasons are the most healthy, Lind says that the dry season in Senegal, the hottest part of the year is healthy, the Arabs living in the parched deserts are always healthy, & the English who have trading companies on the African coast are healthy untill the rainy season comes on, in Africa heat & ~~sickness~~ health are synonymous & it only upon the coming on of the wet season that sickness is produced – In the valley the same thing

occu
hea
per
th
all
Dry
tree
ain
Ap
gov
for
but
Kn
Bu
ne
Blo
ban
dim
day
dim

occurs, our driest & hottest seasons are the most healthy, except our rivers & marshes; Harpers Ferry afforded a striking example during the last season — the rivers being unusually low, the month of August always dry & hot is uniformly exempt from disease & it is only after our periodical rains that bilious fever makes its appearance — It appears from the foregoing that moisture is also necessary for the production of this disease but moisture in excess so far from producing it, acts beneficially; Rush says that the marshes of Delaware are always healthy when overflowed — The inhabitants of Breda & Brabant have arrested bilious fevers by inundating their marshes & Dazille says that the marshes at Cayenne when inundated are more healthy than at

any
thm
liv
pra
A
ea
mo
ur
of
wer
ea
wa
the
hea
for
ma
ten
tha
com
ni

any other time — Excessive rains long continued, always insures health to those living upon water courses, this was particularly observed at Shepherdstown & Harpers ferry, during our sickly seasons, whilst the bilious fever was moving with Giant strides, through our valley these places on account of the inundation of their rivers were entirely exempt from disease, but conversely they are always sickly in proportion to the drought — Something more than heat & moisture is then necessary for its production. This I think may be easily shewn I think by attending to the different situations that are most liable to it, & the circumstances connected with those situations. We find that both in

the
cite
of
tru
on
ty
ex
Wh
m
Cas
wh
Ca
Tra
the
Ke
M
Th
tom
ex
Ge

the old & new world, that all those cities which have been the graves of unnumbered thousands were situated upon marshes or rivers — In the fall of eighteen hundred & twenty five this disease prevailed very extensively upon the Shenandoah, whilst in Charlestown only six miles distant, there were three cases, two physicians & a sheriff whose official duties frequently called them thither, rendering it probable that these cases were contracted there — The above testimony clearly shews that bilious fever is of miasmatic origin, but I think it nothing but fair to mention that some have supposed that mineral exhalations have produced the agent so important to its production,

but
our
men
ex ec
to A
tied
whet
Due
tim
gla
the
ried
this
ted
Hous
to
of a
an
eas
bee

but our valley contains no mines & our mountains, where it is probable minerals exist are generally healthy except those that lie adjacent to the river — It has been disputed & it is still a mooted point, whether animal putrefaction has produced this disease; the weight of testimony on both sides seems to be equally powerful — Galen says that the putrefaction of bodies left unburied on the field of battle have caused this disease, he is powerfully supported in this assertion, particularly by Foestus, who says he was an eye witness to one thus produced, the putrefaction of a whale is said to have produced an epidemic in Holland & in the eastern states a fever is said to have been produced by the putrefaction

of p
vac
the
all
obta
tim
heat
ed d
prey
mm
Tra
by t
ly m
fir
mm
me
ce
fac
the
vo

of fish, the malignant fever that prevailed in Pensacola was ascribed to the same cause — Notwithstanding all this weight of authority, I think, obstinately perhaps, that the foregoing testimony is chimerical, conjured by the heated unimaginations of men who in their endeavours to prove favourite doctrines let prejudice warp their reason for that animal putrefaction coexisting with disease, is purely accidental is proved by the modern fact, that the land lying on rivers, is literally covered with fish for the purpose of manure during the summer & singular as it may appear there never has been a disease produced by it — I could bring forward other proof to substantiate the above premis, such as infection rooms, privies & the Veg-to animal —

putrefaction produced by our stables, but I think the one mentioned so triumphant that additional proof would be superfluous — Diagnosis This disease may known, by the vomiting of bilious matter, the season of the year & the prevailing sickness — The symptoms preceding are pain in the head, back, & loins, aching in the bones, alternate changes of heat & cold, stiffness in the eyes, dulness, languor of the body, yawning & stretching ~~with~~ the tongue covered with a yellow or grenish fur, with the sense of bitterness in the mouth, & the skin sallow. It is then ushered in with a coldness over the body, which is quickly succeeded by the fever, becoming confirmed — The patient

may be considered as doing well, when after a few days, if the pain in his head becomes easy, his skin moist & the pulse soft & slow — But if delirium, subsultus tendinum & coma occur, & the gastric uneasiness still continue, your patients life is in jeopardy — The first thing to be attended to in the treatment of this disease is to moderate arterial action, to effect which there is nothing like blood letting, this may be either local or general — If the pulse is full & strong with a hot dry skin, the face flushed, & the eyes stiff & impatient of light I would bleed & continue it, untill I had made some permanent impression on the system & feelings of my patient, in my opinion one good bleeding is much

Mor
pur
mea
the
by
the
fran
loc
wh
ar
Irro
tic
ben
tom
ym
thro
pa
tic
wh
tin

more effectual, than small bleedings, frequently repeated — But as Dr Chapman wisely remarks, we must use the lancet with judgment, tempered by discretion — If taking blood from the system generally, does not relieve particular symptoms, we must use local blood letting, to accomplish which, we must resort to cupping, leeches, & arteriotomy, which seldom fail to produce the desired effect — Emetics are next in utility, they prove beneficial, by directly ridding the stomach of offensive matter, which sympathetically extends its influence throughout the system. I have seen patients after the operation of an emetic who had spent a sleepless night, with a most distressing headach, tossing in bed, unable to keep while a

moment, directly become composed all unpleasant symptoms leaving them & with a moist soft skin gradually sink into a sweet calm sleep — I have so much confidence in this class of remedies that I consider them as almost specific in this disease, certainly I would never omit them, without there was a constitutional objection, such as hernia, pregnancy, internal inflammation, or a strong predisposition to apoplexy, as regards the continuance of this remedy, it would depend altogether upon the effect produced. The best emetic that I have seen tried, is the one recommended by Dr Chapman, a combination of Ipecacuanha & T. Emetic, twenty of the former & one or two of the latter, the Ipecac. gives promptness of operation to

the
a th
fazo
fee
Dire
one
in o
by
of t
as the
this
thin
Chap
rum
it
rum
ma
econ
the
to

the emetic whilst the Antimony remains a sufficient time to evacuate the stomach properly — I have also seen a fine effect from artificial cholera in this disease, produced by combining Calomel & Tartar — Cathartics are not in efficacy, they prove beneficial by evacuating the alimentary canal of bile & other offensive matter: as there is generally much excitement in this disease at the beginning & as there are exacerbations & remissions Dr Chapman advises us to to watch for the remission before we give our medicine as it is apt to be quickly rejected, or remain in a quiescent state upon the stomach, would it not be proper to economize time instead of waiting for the remission, as the salts are said to reduce action, to precede the drastic

articles by a dose of some one of them such as salts & senna — The best Cathartic is a combination of Calome & Jalap or Rhubarb, assisted in its operation by some of the saline articles, I have seen great benefit derived from a mixture recommended by Dr Chapman, Epsom or Glauber salts, ℥. Emetic, lemon juice & water, given in divided doses, this not only keeps up a gentle evacuation but it removes constriction of the capillary vessels & thereby produces a moist, soft skin — Dr Cook recommends a combination which I think highly useful in this disease, Calomel, Jalap, Aloes, Scammony & Rhubarb, I have seen dark fetid stools brought away to the manifest relief of the patient — As the fever progresses we must keep the bowels open with clysters, particularly if the

stomach is in a very irritable state & sometimes it is absolutely necessary on account of our inability to get the medicine to produce the desired effect — As regards the continuance of the cathartics, I would continue them as long as my patient had a furred tongue & sallow complexion & dark & fetid stools; it is here that Calomel given in minute doses shews itself to be the Sampson of the materia Medica, after having administered a defined quantity it must be then be worked off by salts conjoined with Tartar — Diaphoretics are next highly important remedies in this disease, but there are no remedies that I would be more cautious in using, as they have been found by experience to aggravate all the symptoms when

given
prov
dim
lak
emo
blo
vef
the
sup
gu
ven
gra
Mu
the
cal
suf
ent
vi
tw
ne

given at an improper time — They produce their beneficial effect by diminishing the quantity of circulating fluids, & by preventing, or removing congestion, determining the blood from the viscera to the extreme vessels — The best diaphoretics are the James's powder & tartar emetic, I would prefer the latter as the former is frequently adulterated, it must be given from a fourth to an eighth of a grain — As to the operation of this medicine I think with Dr Chapman that it produces its effect specifically & not by nauseating as has been supposed, for the most nauseating articles do not produce diaphoresis & it is an axiom in nature that reaction will be in proportion to the cause & consequently fever —

Dom
vict
thin
sou
on e
Dis
thro
of
Wh
the
he
tut
to ta
civ
the
Re
a p
in
po
the

Sometimes the stomach being too irritable, we are unable to give antimony, we must then substitute something that will be grateful such as the saline mixture; its disposition to produce perspiration being assisted by sweet spirits of nitre or antimonial wine — When there is too much excitement the remedies mentioned above must be laid aside & Rush's powder substituted in their place, the calomel & tartar being omitted according to circumstances; as an assistant to the above I have seen the most decided benefit accrue from the application of ice or cloths dipped in ice water & laid upon the forehead, but this was only when there was a great deal of heat

+ a
Du
ra
sla
d'
of
aby
but
auth
str
is
they
Lit
tion
Re
of
to
+ g
the
to

& a determination to the head, it reduced the circulation caused perspiration & composed the patient to sleep — Next there has been much disputation about the propriety of using blisters & there are has been objected to by very high authority but I would use them against all authority except ocular demonstration, believing if the system is properly prepared by evacuation, that they equalize the circulation & destroy the germs of morbid assimilation — This disease is frequently kept up from acrid and stale of the liver, we must have recourse to Calomel as a dernier resource & gently salivate our patient this hardly fails to restore him to health ——— As to the treat-

ment during convalescence, the whole secret consists in attending strictly to the patients diet, in giving bark or its essence Quinine & in the use of old porter or wine & by attending to the bowels, if this treatment is strictly continued we need never fear a relapse ——

H Weis